

Cotares Router Help

What is a Choice Routing?

Cotares has discovered a new mathematical approach to route planning that delivers a set of good diverse and robust routes, rather than just a single one. By presenting these diverse routes to the user of route planning or vehicle guidance software we give them full understanding and control over their final route choice.

Conventional routers present only the single optimal route to a destination. The confused user is often left wondering why other obviously good route choices (perhaps including the user's favourite) have been ignored, and how they would compare. Cotares Choice Routing can find all the best diverse alternative routes and rank them using a powerful measure of goodness. A well-informed route choice can now be made by the driver.

Cotares Choice Routes are calculated on our own Server using our translation of the full Open Street Map world map, including pedestrian links, and are presented over Open Street Map tiles. The demonstration software can also work with Here and TomTom maps.

More information, including some downloadable documents, is available on our website at [Cotares Routing](#).

Setting Journey Start and End Positions

The journey Start and End markers can be set by either dragging the Start and End markers or right-clicking. The Start marker is green and labelled S, and the End marker is red and labelled E. The new Route is calculated immediately.

Journeys involving ferry routes are possible where the ferries have been included in the original map.

Choice Routes Table

The Choice Routes Table, which has a default position in the top left, reports some essential summary values for each alternative

Choice Route. If the table obscures anything interesting it can be dragged anywhere on the map. Hovering the cursor on a Choice Route entry in the box highlights the corresponding route on the map.

The route colours shown on the map reflect the Functional Class of the road sections. Motorways are shown in blue, lesser high class roads in red, minor roads in green and residential roads in light green.

The maximum number of routes found can be edited, and the minimum Goodness value (see below) can also be changed. Press RETURN after changing a value to recalculate the route.

Sometimes, unusually, there really are no reasonable alternative routes. An example would be where your journey started very near to one end of a straight high class road, and your destination was very near the other end.

NB if you want to see a large number of alternative routes, set the maxRoutes to a large value (e.g. 20), then set the minGoodness to a low value (e.g. 0), so that lower Goodness routes appear.

Route Number	The routes are presented and numbered in order of the corresponding Goodness value.
Goodness	A single characteristic value for a route, discovered by Cotares. It takes into account not only how optimal the route is, but also how diverse it is from the most optimal route under the selected Routing Cost Function.
Fuel	The computed fuel use, in litres, for the route. This can be based on any engine model, including PEVs, and would be in kWh for EVs.
Time	The journey time for the numbered route, in days, hours, minutes and seconds.
Km	The journey distance for the numbered route in km.
Description	The road names/numbers of the 5 longest road sections on the route. This helps to roughly identify which way the route has taken.
Av.km/h	Average speed in km/h along the route.